#### Smith Economics Group, Ltd.

A Division of Corporate Financial Group

Economics / Finance / Litigation Support

Stan V. Smith, Ph.D.
President

September 15, 2008

Mr. James R. Marsh Marsh Law Firm PO Box 4668 #65135 New York, NY 10163-4668

Re:

Dear Mr. Marsh:

You have asked me to calculate the value of certain losses subsequent to the sexual exploitation of \_\_\_\_\_\_. These losses are: (1) the loss of wages and employee benefits; (2) the present value of future treatment and counseling costs; and (3) the reduction in value of life ("RVL"), also known as loss of enjoyment of life.

is a Caucasian, single female, who was born on 1989, and suffered sexual abuse by her uncle which was made into child pornography at the age of 9 years. Ms. will be 19.6 years old at the estimated trial or settlement date of January 1, 2009, with a remaining life expectancy estimated at 61.9 years. This data is from the National Center for Health Statistics, United States Life Tables, 2004, Vol. 56, No. 9, National Vital Statistics Reports, 2007.

In order to perform this evaluation, I have reviewed the following materials: (1) an interview with Dr. Joyanna Silberg on September 13, 2008; and (2) the case information form. Additionally, it is my understanding that additional supportive information will be provided by Dr. Joyanna Silberg and Dr. Sharon Cooper.

My methodology for estimating the losses, which is explained below, is generally based on past wage growth, interest rates, and consumer prices, as well as studies regarding the value of life. The effective net discount rate using statistically average wage growth rates and statistically average discount rates is 0.50 percent.

My estimate of the real wage growth rate is 1.15 percent per year. This growth rate is based on Business Sector, Hourly Compensation growth data from the Major Sector Productivity and Costs Index found at the U.S. Bureau of Labor Statistics website at www.bls.gov/data/home.htm, Series ID: PRS84006103, for the real increase in wages primarily for the last 20 years.

My estimate of the real discount rate is 1.65 percent per year. This discount rate is based on the rate of return on 91-day U.S. Treasury Bills published in the Economic Report of the President for the real return on T-Bills primarily for the last 20 years. This rate is also consistent with historical rates published by Ibbotson Associates, Chicago, in its continuously updated series Stocks, Bonds, Bills and Inflation published by Morningstar, Inc. This series, which acknowledges me as the Originator while a Principal and Managing Director at Ibbotson Associates, is generally regarded by academics in the field of finance as the most widely accepted source of statistics on the rates of return on investment securities. It is relied upon almost exclusively by academic and business economists, insurance companies, banks, institutional investors, CPA's, actuaries, benefit analysts, and economists in courts of law.

Estimates of real growth and discount rates are net of inflation based on the Consumer Price Index (CPI-U), published in monthly issues of the U.S. Bureau of Labor Statistics, CPI Detailed Report (Washington, D.C.: U.S. Government Printing Office) and available at the U.S. Bureau of Labor Statistics website at www.bls.gov/data/home.htm, Series ID: CUUR0000SA0. The rate of inflation for the past 20 years has been 3.04 percent.

#### I(A). LOSS OF WAGES AND EMPLOYEE BENEFITS - Full-Time Employment

Tables 1 through 3 show the loss of wages and benefits. Ms. graduated high school and started college; however, she failed her first year due to impact of her sexual abuse and exploitation. Ms. so worker attended Biscayne Paramedical Institute and has a certificate in Registered Medical Assistant. Ms. so father attended City of London Technical College and has a degree in Electrical Contracting. Ms. so brother graduated high school and attended Johnson Trade Center to study Electrical Contracting. Ms. was interested in attending college and becoming an elementary school teacher.

Since the earnings of teachers is comparable to the earnings of female college graduates, the wage estimate starting in 2011 is illustrated at the average earnings of non-Hispanic, white females between the ages of 18 and 24 years old with a Bachelor's degree of \$34,533 in year 2007 dollars. The wage estimate is grown in the year 2024 to the average earnings of non-Hispanic, white females between the ages of 35 and 44 years old with a Bachelor's degree of \$61,587 in year 2007 dollars. This wage data is published in the U.S. Bureau of the Census and the Bureau of Labor Statistics, Current Population Survey, Annual Social and Economic Supplement, Washington, D.C., 2008.

Employee benefit estimates are based on data from the U.S. Chamber of Commerce, 2007 Employee Benefits Study, (Washington,

DC: Statistics and Research Center, 2008). I have assumed that employee benefits grow at the same rate as wages and are discounted to present value at the same discount rate. Since these tables assume full-time work, I do not include employee benefits relating to unemployment, injury, illness or disability; benefits are estimated at 29.3 percent of wages.

I assume full-time employment each year and show the accumulation through life expectancy. While these tables are calculated through the end of life expectancy, the losses from working full-time through any assumed retirement age can be read off the table.

Based on the above assumptions, my opinion of the wage loss for full-time employment is \$4,121,025 ▶ Table 3. This figure assumes full-time work to age 81.5, but any assumed retirement age may be read from Table 3; for example, the full-time employment wage loss to age 67 is \$3,204,353.

#### I(B). EARNINGS CAPACITY OFFSET

Tables 4 through 6 show the offset to wages. Ms. dropped out of college when she discovered the extent of her victimization, and she is currently unemployed. Based on my interview with Dr. Joyanna Silberg, Ms. is currently only able to do part-time, low lever work, if she is able to work at all.

The offset starting January 1, 2009 is illustrated at a benchmark of \$10 per hour for 15 hours per week. Employee benefits are estimated at 6.2 percent of wages.

Based on these assumptions, my opinion of the wage <u>offset</u> is  $$436,091 \rightarrow Table 6$  for full-time employment. This figure assumes work to age 81.5, but any assumed retirement age may be read from Table 6. For example, the wage <u>offset</u> to age 67 is \$349,180.

The net loss of earnings capacity is \$2,855,173 to age 67.

#### II. COST OF FUTURE TREATMENT AND COUNSELING COSTS

Table 7 shows the cost of future treatment and counseling costs. The present value of treatment and counseling costs is based on my interview with Dr. Joyanna Silberg and expected testimony of Dr. Silberg and Dr. Cooper. It is my understanding that Ms. will require counseling for the remainder of her life. I illustrate counseling costs at one hour per week at \$150 per hour, which is \$7,800 annually.

Dr. Silberg states that Ms. will also require approximately 3 institutionalizations during her lifetime at various stages of her life, which range from \$30,000 to \$50,000 per institutionalization, which is an average of \$120,000 over her lifetime, or \$1,938.61 annually.

The annual future treatment and counseling costs starting on January 1, 2009 are illustrated at \$9,739. Future costs are illustrated to grow at 1.15 percent real wage growth.

Based on this information, my opinion of the average cost of future treatment and counseling costs is \$512,681 ▶ Table 7.

#### III. REDUCTION IN VALUE OF LIFE

Tables 8 through 10 show the loss of the value of life. Economists have long agreed that life is valued at more than the lost earnings capacity. My estimate of the value of life is based on many economic studies on what we, as a contemporary society, actually pay to preserve the ability to lead a normal life. The studies examine incremental pay for risky occupations as well as a multitude of data regarding expenditure for life savings by individuals, industry, and state and federal agencies. Based on the average value of a statistical life and life expectancy of 81.5 years, my opinion of the loss of the value of life for

My estimate of the value of life is consistent with estimates published in other studies that examine and review the broad spectrum of economic literature on the value of life. Among these is "The Plausible Range for the Value of Life," Journal of Forensic Economics, Vol. 3, No. 3, Fall 1990, pp. 17-39, by T. R. Miller. This study reviews 67 different estimates of the value of life published by economists in peer-reviewed academic journals. The results, in most instances, show the value of life to range from approximately \$1.6 million to \$2.9 million dollars in year 1988 after-tax dollars, with a mean of approximately \$2.2 million dollars, and variance in the estimate of the mean of up to 40 percent. In "The Value of Life: Estimates with Risks by Occupation and Industry, " Harvard University, John M. Olin Center for Law, Economics, and Business, No. 442, May 2003, Professor W. K. Viscusi estimates the value of life to be approximately \$4.7 million dollars in year 2000 dollars.

Because it is generally accepted by economists, the methodology used to estimate the value of life has been found to meet <u>Daubert</u> standards, as well as <u>Frye</u> standards and the Rules of Evidence in various states, by Federal Circuit and Appellate courts, as well as state trial, supreme and appellate courts nationwide. Testimony based on this peer-reviewed methodology has been admitted in over half the states in over 175 trials nationwide.

Proof of general acceptance and other standards is found in a discussion of the extensive references to the scientific economic peer-reviewed literature on the value of life listed in the Value of Life Appendix to this report.

The underlying, academic, peer-reviewed studies fall into two general groups: (1) consumer behavior and purchases of safety devices; (2) wage risk premiums to workers; in addition, there is a third group of studies consisting of cost-benefit analyses of regulations. For example, one consumer safety study analyzes the costs of smoke detectors and the lifesaving reduction associated with them. One wage premium study examines the differential rates of pay for dangerous occupations with a risk of death on the job. Just as workers receive shift premiums for undesirable work hours, workers also receive a higher rate of pay to accept a increased risk of death on the job. A study of government regulation examines the lifesaving resulting from the installation of smoke stack scrubbers at high-sulphur, coalburning power plants. As a hypothetical example of the methodology, assume that a safety device costs \$460 and results in lowering a person's risk of premature death by one chance in 5,000. As a hypothetical example of the methodology, assume that a safety device costs \$460 and results in lowering a person's risk of premature death by one chance in 2,500. The cost per life saved is obtained by dividing \$460 by the one in 2,500 probability, yielding \$4,600,000. Overall, based on the peerreviewed economic literature, I estimate the central tendency of the range of the economic studies cited above which I estimate to be credibly as high as \$5.7 million in year 2008 dollars.

A trier-of-fact may weigh other factors to determine if these estimated losses for should be adjusted because of special qualities or circumstances that economists do not as yet have a methodology for analysis. These estimates are provided as an aid, tool and guide for the trier-of-fact.

All opinions expressed in this report are clearly labeled as such. They are rendered in accordance with generally accepted standards within the field of economics and are expressed to a reasonable degree of economic certainty. Estimates, assumptions, illustrations and the use of benchmarks, which are not opinions, but which can be viewed as hypothetical in nature, are also clearly disclosed and identified herein.

In my opinion, it is reasonable for experts in the field of economics and finance to rely on the materials and information I reviewed in this case for the formulation of my substantive opinions herein.

If additional information is provided to me, which could alter my opinions, I may incorporate any such information into an update, revision, addendum, or supplement of the opinions expressed in this report.

If you have any questions, please do not hesitate to call me.

Sincerely,

Stan V. Smith, Ph.D.

President

#### APPENDIX: VALUE OF LIFE

The economic methodology for the valuation of life has been found to meet the <u>Daubert</u> and <u>Frye</u> standards by many courts, along with the Rules of Evidence in many states nationwide. My testimony has been accepted in approximately 175 state and federal jurisdictions nationwide in over half the states. Testimony has been accepted by Federal circuit and Appellate courts as well as in state trial, supreme, and appellate Courts. The <u>Daubert</u> standard sets forth four criteria:

- 1. Testing of the theory and science
- 2. Peer Review
- 3. Known or potential rate of error
- 4. Generally accepted.

Testing of the theory and science has been accomplished over the past four decades, since the 1960s. Dozens of economists of high renown have published over a hundred articles in high quality, peer-reviewed economic journals measuring the value of life. The value of life theories are perhaps among the most well-tested in the field of economics, as evidenced by the enormous body of economic scientific literature that has been published in the field and is discussed below.

Peer Review of the concepts and methodology have been extraordinarily extensive. One excellent review of this extensive, peer-reviewed literature can be found in "The Value of Risks to Life and Health, " W. K. Viscusi, <u>Journal of Economic</u> Literature, Vol. 31, December 1993, pp. 1912-1946. A second is "The Value of a Statistical Life: A Critical Review of Market Estimates throughout the World." W. K. Viscusi and J. E. Aldy, Journal of Risk and Uncertainty, Vol. 27, No. 1, November 2002, pp. 5-76. Additional theoretical and empirical work by Viscusi, a leading researcher in the field, can be found in: "The Value of Life", W. K. Viscusi, John M. Olin Center for Law, Economics, and Business, Harvard Law School, Discussion Paper No. 517, June 2005. An additional peer-reviewed article discusses the application to forensic economics: "The Plausible Range for the Value of Life, "T. R. Miller, Journal of Forensic Economics, Vol. 3, No. 3, Fall 1990, pp. 17-39, which discusses the many dozens of articles published in other peer-reviewed economic journals on this topic. This concept is discussed in detail in "Willingness to Pay Comes of Age: Will the System Survive?" T. R. Miller, Northwestern University Law Review, Summer 1989, pp. 876-907, and "Hedonic Damages in Personal Injury and Wrongful Death Litigation, "by S. V. Smith in Litigation Economics, pp. 39-59.

Kenneth Arrow, a Nobel Laureate in economics, discusses this method for valuing life in "Invaluable Goods," <u>Journal of Economic Literature</u>, Vol. 35, No. 2, 1997, pp. 759.

The known or potential rate of error is well researched. All of these articles discuss the known or potential rate of error, well within the acceptable standard in the field of economics, generally using a 95% confidence rate for the statistical testing and acceptance of results. There are few areas in the field of economics where the known or potential rate of error has been as well-accepted and subject to more extensive investigation.

General Acceptance of the concepts and methodology on the value of life in the field of economics is extensive. This methodology is and has been generally accepted in the field of economics for many years. Indeed, according to the prestigious and highly-regarded research institute, The Rand Corporation, by 1988, the peer-reviewed scientific methods for estimating the value of life were well-accepted: "Most economists would agree that the willingness-to-pay methodology is the most conceptually appropriate criterion for establishing the value of life,"

Computing Economic loss in Cases of Wrongful Death, King and Smith, Rand Institute for Civil Justice, R-3549-ICJ, 1988.

While first discussed in cutting edge, peer-reviewed economic journals, additional proof of general acceptance is now indicated by the fact that this methodology is now taught in standard economics courses at the undergraduate and graduate level throughout hundreds of colleges and universities nationwide as well as the fact that it is taught and discussed in widelyaccepted textbooks in the field of law and economics: Economics, Sixth Edition, David C. Colander, McGraw-Hill Irwin, Boston, 2006, pp. 463-465; this introductory economics textbook is the third most widely used textbook in college courses nationwide. Hamermesh and Rees's The Economics of Work and Pay, Harper-Collins, 1993, Chapter 13, a standard advanced textbook in labor economics, also discusses the methodology for valuing life. Other textbooks discuss this topic as well. Richard Posner, a Justice and former Chief Justice of the U.S. Court of Appeals for the highly regarded 7th Circuit and Senior Lecturer at the University of Chicago Law School, one of most prolific legal writers in America, details the Value of Life approach in his widely used textbooks: Economic Analysis of Law, 1986, Little Brown & Co., pp. 182-185 and Tort Law, 1982, Little Brown & Co., pp. 120-126.

As further evidence of general acceptance in the field, many surveys published in the field of forensic economics show that hundreds of economics nationwide are now familiar with this methodology and are available to prepare (and critique) forensic economic value of life estimates. Indeed, many economists who

indicate they will prepare such analysis for plaintiffs also are willing to critique such analysis for defendants, as I have often That an economist is willing to critique a report does not indicate that he or she is opposed to the concept or the methodology, but merely available to assure that the plaintiff economist has employed proper techniques. The fact that there are economists who indicate they do not prepare estimates of value of life is again no indication that they oppose the methodology: many claim they are not familiar with the literature and untrained in this area. While some CPAs and others without a degree in economics have opposed these methods, such professionals do not have the requisite academic training and are ungualified to make such judgements. However, as in any field of economics, this area is not without controversy and there are some qualified and trained economists who dispute certain aspects of the methodology. General acceptance does not mean universal acceptance.

Additional evidence of general acceptance in the field is found in the teaching of the concepts regarding the value of life. Forensic Economics is now taught as a special field in a number of institutions nationwide. I taught what is believed to be the first course ever presented in the field of Forensic Economics at DePaul University in Spring, 1990. My own book, Economic/Hedonic Damages, Anderson, 1990, and supplemental updates thereto, coauthored with Dr. Michael Brookshire, a Professor of Economics in West Virginia, has been used as a textbook in at least 5 colleges and universities nationwide in such courses in economics, and has a thorough discussion of the methodology. Toppino et. al., in "Forensic Economics in the Classroom," published in The Earnings Analyst, Journal of the American Rehabilitation Economics Association, Vol. 4, 2001, pp. 53-86, indicate that hedonic damages is one of 15 major topic areas taught in such courses.

Lastly, general acceptance is found by examining publications in the primary journal in the field of Forensic Economics, which is the peer-reviewed Journal of Forensic Economics, where there have been published many articles on the value of life. Some are cited above. Others include: "The Econometric Basis for Estimates of the Value of Life, " W. K. Viscusi, Vol 3, No. 3, Fall 1990, pp. 61-70; "Hedonic Damages in the Courtroom Setting." S. V. Smith, Vol. 3, No. 3, Fall 1990, pp. 41-49; "Issues Affecting the Calculated Value of Life, " E. P. Berla, M. L. Brookshire and S. V. Smith, Vol 3, No. 1, 1990, pp. 1-8; "Hedonic Damages and Personal Injury: A Conceptual Approach. "G. R. Albrecht, Vol. 5., No. 2, Spring/Summer 1992, pp. 97-104; "The Application of the Hedonic Damages Concept to Wrongful and Personal Injury Litigation. "G. R. Albrecht, Vol. 7, No. 2, Spring/Summer 1994, pp. 143-150; and also "A Review of the Monte Carlo Evidence Concerning Hedonic Value of Life Estimates, " R. F. Gilbert, Vol. 8, No. 2, Spring/Summer 1995, pp. 125-130.

It is important to note that this methodology is endorsed and employed by the U. S. Government as the standard and recommended approach for use by all U. S. Agencies in valuing life for policy purposes, as mandated in current and past Presidential Executive Orders in effect since 1972, and as discussed in "Report to Congress on the Costs and Benefits of Federal Regulations," Office of Management and Budget, 1998, and "Economic Analysis of Federal Regulations Under Executive Order 12866, " Executive Office of the President, Office of Management and Budget, pp. 1-37, and "Report to the President on Executive Order No. 12866," Regulatory Planning and Review, May 1, 1994, Office of Information and Regulatory Affairs, Office of Management and Budget. Prior presidents signed similar orders as discussed in "Federal Agency Valuations of Human life," Administrative Conference of the United States, Report for Recommendation 88-7, December 1988, pp. 368-408. 7911

#### SUMMARY OF LOSSES FOR

TABLE ****	DESCRIPTION ************************************	ESTIMATE ******
3	LOSS OF WAGES & BENEFITS Full-Time Employment to age 67	\$3,204,353
6	OFFSET OF WAGES & BENEFITS Employment to age 67	<u>(\$ 349,180)</u>
(3-6)	NET WAGES & BENEFITS LOSS Employment to age 67	<u>\$2,855,173</u>
	PRESENT VALUE OF FUTURE COUNSELING COS	 S <u>TS</u>
7	COST OF FUTURE TREATMENT AND COUNSELING COSTS	\$ 512,681
	LOSS OF ENJOYMENT OF LIFE	
10	REDUCTION IN VALUE OF LIFE	\$8,886,300

The information on this Summary of Losses is intended to summarize losses under certain given assumptions. Please refer to the report and the tables for all the opinions.

# PRESENT VALUE OF FUTURE WAGES 2011 - 2070

			DISCOUNT	PRESENT	
YEAR	AGE	WAGES	FACTOR	VALUE	CUMULATE
****	***	*****	*****	*****	******
2011	22	\$19,215	0.95209	\$18,294	\$18,294
2012	23	40,566	0.93664	37,996	56,290
2013	24	42,937	0.92143	39,563	95,853
2014	25	45,447	0.90647	41,196	137,049
2015	26	48,104	0.89176	42,897	179,946
2016	27	50,916	0.87729	44,668	224,614
2017	28	53,893	0.86305	46,512	271,126
2018	29	57,044	0.84904	48,433	319,559
2019	30	60,379	0.83525	50,432	369,991
2020	31	63,909	0.82170	52,514	422,505
2021	32	67,645	0.80836	54,682	477,187
2022	33	71,600	0.79524	56,939	534,126
2023	34	75,786	0.78233	59,290	593,416
2024	35	80,216	0.76963	61,737	655,153
2025	36	81,138	0.75714	61,433	716,586
2026	37	82,071	0.74485	61,131	777,717
2027	38	83,015	0.73276	60,830	838,547
2028	39	83,970	0.72086	60,531	899,078
2029	40	84,936	0.70916	60,233	959,311
2030	41	85,913	0.69765	59,937	1,019,248
2031	42	86,901	0.68633	59,643	1,078,891
2032	43	87,900	0.67519	59,349	1,138,240
2033	44	88,911	0.66423	59,057	1,197,297
2034	45	89,933	0.65344	58,766	1,256,063
2035	46	90,967	0.64284	58,477	1,314,540
2036	47	92,013	0.63240	58,189	1,372,729
2037	48	93,071	0.62214	57,903	1,430,632
2038	49	94,141	0.61204	57,618	1,488,250
2039	50	95,224	0.60210	57,334	1,545,584
2040	51	96,319	0.59233	57,053	1,602,637
2041	52	97,427	0.58272	56,773	1,659,410
2042	53	98,547	0.57326	56,493	1,715,903
2043	54	99,680	0.56395	56,215	1,772,118
2044	55	100,826	0.55480	55,938	1,828,056
2045	56	101,985	0.54579	55,662	1,883,718
2046	57	103,158	0.53693	55,389	1,939,107
2047	58	104,344	0.52822	55,117	1,994,224
2048	59	105,544	0.51964	54,845	2,049,069
2049	60	106,758	0.51121	54,576	2,103,645
2050	61	107,986	0.50291	54,307	2,157,952
2051	62	109,228	0.49475	54,041	2,211,993
2052	63	110,484	0.48672	53,775	2,265,768
2053	64	111,755	0.47882	53,511	2,319,279
2054	65	113,040	0.47104	53,246	2,372,525
2055	66	114,340	0.46340	52,985	2,425,510
2056	67	115,655	0.45587	52,724	2,478,234
2057	68	116,985	0.44847	52,464	2,530,698
2058	69	118,330	0.44120	52,207	2,582,905
2059	70	119,691	0.43403	51,949	2,634,854
2060	71	121,067	0.42699	51,694	2,686,548

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## PRESENT VALUE OF FUTURE WAGES 2011 - 2070

			DISCOUNT	PRESENT	
YEAR	AGE	WAGES	FACTOR	VALUE	CUMULATE
****	***	*****	*****	******	******
2061	72	122,459	0.42006	51,440	2,737,988
2062	73	123,867	0.41324	51,187	2,789,175
2063	74	125,291	0.40653	50,935	2,840,110
2064	75	126,732	0.39993	50,684	2,890,794
2065	76	128,189	0.39344	50,435	2,941,229
2066	77	129,663	0.38705	50,186	2,991,415
2067	78	131,154	0.38077	49,940	3,041,355
2068	79	132,662	0.37459	49,694	3,091,049
2069	80	134,188	0.36851	49,450	3,140,499
2070	81	128,666	0.36284	46,685	\$3,187,184

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## PRESENT VALUE OF FUTURE EMPLOYEE BENEFITS 2011 - 2070

		EMPLOYEE	DISCOUNT	PRESENT	
YEAR	AGE	BENEFITS	FACTOR	VALUE	CUMULATE
****	***	*****	*****	*****	*****
2011	22	\$5,630	0.95209	\$5,360	\$5,360
2012	23	11,886	0.93664	11,133	16,493
2013	24	12,581	0.92143	11,593	28,086
2014	25	13,316	0.90647	12,071	40,157
2015	26	14,094	0.89176	12,568	52,725
2016	27	14,918	0.87729	13,087	65,812
2017	28	15,791	0.86305	13,628	79,440
2018	29	16,714	0.84904	14,191	93,631
2019	30	17,691	0.83525	14,776	108,407
2020	31	18,725	0.82170	15,386	123,793
2021	32	19,820	0.80836	16,022	139,815
2022	33	20,979	0.79524	16,683	156,498
2023	34	22,205	0.78233	17,372	173,870
2024	35	23,503	0.76963	18,089	191,959
2025	36	23,773	0.75714	17,999	209,958
2026	37	24,047	0.74485	17,911	227,869
2027	38	24,323	0.73276	17,823	245,692
2028	39	24,603	0.72086	17,735	263,427
2029	40	24,886	0.70916	17,648	281,075
2030	41	25,173	0.69765	17,562	298,637
2031	42	25,462	0.68633	17,475	316,112
2032	43	25,755	0.67519	17,390	333,502
2033	44	26,051	0.66423	17,304	350,806
2034	45	26,350	0.65344	17,218	368,024
2035	46	26,653	0.64284	17,134	385,158
2036	47	26,960	0.63240	17,050	402,208
2037	48	27,270	0.62214	16,966	419,174
2038	49	27,583	0.61204	16,882	436,056
2039	50	27,901	0.60210	16,799	452,855
2040	51	28,221	0.59233	16,716	469,571
2041	52	28,546	0.58272	16,634	486,205
2042	53	28,874	0.57326	16,552	502,757
2043	54	29,206	0.56395	16,471	519,228
2044	55	29,542	0.55480	16,390	535,618
2045	56	29,882	0.54579	16,309	551,927
2046	57	30,225	0.53693	16,229	568,156
2047	58	30,573	0.52822	16,149	584,305
2048	59	30,924	0.51964	16,069	600,374
2049	60	31,280	0.51121	15,991	616,365
2050	61	31,640	0.50291	15,912	632,277
2051	62	32,004	0.49475	15,834	648,111
2052	63	32,372	0.48672	15,756	663,867
2053	64	32,744	0.47882	15,678	679,545
2054	65	33,121	0.47104	15,601	695,146
2055	66	33,502	0.46340	15,525	710,671
2056	67	33,887	0.45587	15,448	726,119
2057	68	34,277	0.44847	15,372	741,491
2058	69	34,671	0.44120	15,297	756,788
2059	70	35,069	0.43403	15,221	772,009
2060	71	35,473	0.42699	15,147	787,156

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## PRESENT VALUE OF FUTURE EMPLOYEE BENEFITS 2011 - 2070

		EMPLOYEE	DISCOUNT	PRESENT	
YEAR	AGE	BENEFITS	FACTOR	VALUE	CUMULATE
***	***	*****	*****	*****	*****
2061	72	35,880	0.42006	15,072	802,228
2062	73	36,293	0.41324	14,998	817,226
2063	74	36,710	0.40653	14,924	832,150
2064	75	37,132	0.39993	14,850	847,000
2065	76	37,559	0.39344	14,777	861,777
2066	77	37,991	0.38705	14,704	876,481
2067	78	38,428	0.38077	14,632	891,113
2068	79	38,870	0.37459	14,560	905,673
2069	80	39,317	0.36851	14,489	920,162
2070	81	37,699	0.36284	13,679	\$933,841

PRESENT VALUE OF NET WAGE AND BENEFIT LOSS 2011 - 2070

			EMPLOYEE		
YEAR	AGE	WAGES	BENEFITS	TOTAL	CUMULATE
***	***	*****	*****	*****	*****
2011	22	\$18,294	\$5,360	\$23,654	\$23,654
2012	23	37,996	11,133	49,129	72,783
2013	24	39,563	11,593	51,156	123,939
2014	25	41,196	12,071	53,267	177,206
2015	26	42,897	12,568	55,465	232,671
2016	27	44,668	13,087	57,755	290,426
2017	28	46,512	13,628	60,140	350,566
2018	29	48,433	14,191	62,624	413,190
2019	30	50,432	14,776	65,208	478,398
2020	31	52,514	15,386	67,900	546,298
2021	32	54,682	16,022	70,704	617,002
2022	33	56,939	16,683	73,622	690,624
2023	34	59,290	17,372	76,662	767,286
2024	35	61,737	18,089	79,826	847,112
2025	36	61,433	17,999	79,432	926,544
2026	37	61,131	17,911	79,042	1,005,586
2027	38	60,830	17,823	78,653	1,084,239
2028	39	60,531	17,735	78,266°	1,162,505
2029	40	60,233	17,648	77,881	1,240,386
2030	41	59,937	17,562	77,499	1,317,885
2031	42	59,643	17,475	77,118	1,395,003
2032	43	59,349	17,390	76,739	1,471,742
2033	44	59,057	17,304	76,361	1,548,103
2034	45	58,766	17,218	75,984	1,624,087
2035	46	58,477	17,134	75,611	1,699,698
2036	47	58,189	17,050	75,239	1,774,937
2037	48	57,903	16,966	74,869	1,849,806
2038	49	57,618	16,882	74,500	1,924,306
2039	50	57,334	16,799	74,133	1,998,439
2040	51	57,053	16,716	73,769	2,072,208
2041	52	56,773	16,634	73,407	2,145,615
2042	53	56,493	16,552	73,045	2,218,660
2043	54	56,215	16,471	72,686	2,291,346
2044	55	55,938	16,390	72,328	2,363,674
2045	56	55,662	16,309	71,971	2,435,645
2046	57 50	55,389	16,229	71,618	2,507,263
2047	58	55,117	16,149	71,266	2,578,529
2048 2049	59	54,845	16,069	70,914	2,649,443
	60	54,576	15,991	70,567	2,720,010
2050 2051	61 62	54,307	15,912	70,219	2,790,229
2051	62	54,041	15,834	69,875	2,860,104
	63 64	53,775	15,756	69,531	2,929,635
2053 2054	64 65	53,511 53,246	15,678 15,601	69,189	2,998,824
2054	66	53,246 52,985	15,601 15,525	68,847	3,067,671
2056	67	52,724	15,525	68,510	3,136,181
2057	68	52,724	15,448	68,172 67,836	3,204,353 3,272,189
2058	69	52,404	15,372	67,504	3,272,189
2059	70	51,949	15,221	67,170	3,406,863
2060	71	51,694	15,147	66,841	3,473,704
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# PRESENT VALUE OF NET WAGE AND BENEFIT LOSS 2011 - 2070

			EMPLOYEE		
YEAR	AGE	WAGES	BENEFITS	TOTAL	CUMULATE
***	***	******	*****	*****	******
2061	72	51,440	15,072	66,512	3,540,216
2062	73	51,187	14,998	66,185	3,606,401
2063	74	50,935	14,924	65,859	3,672,260
2064	75	50,684	14,850	65,534	3,737,794
2065	76	50,435	14,777	65,212	3,803,006.
2066	77	50,186	14,704	64,890	3,867,896
2067	78	49,940	14,632	64,572	3,932,468
2068	79	49,694	14,560	64,254	3,996,722
2069	80	49,450	14,489	63,939	4,060,661
2070	81	46,685	13,679	60,364	\$4,121,025
		\$3,187,184	\$933,841	\$4,121,025	

PRESENT VALUE OF FUTURE OFFSET WAGES 2009 - 2070

			-		
			DISCOUNT	PRESENT	
YEAR	AGE	WAGES	FACTOR	VALUE	CUMULATE
***	***	****	*****	*****	******
2009	20	\$7,800	0.98377	\$7,673	\$7,673
2010	21	7,890	0.96780	7,636	15,309
2011	22	7,981	0.95209	7,599	22,908
2012	23	8,073	0.93664	7,561	30,469
2013	24	8,166	0.92143	7,524	37,993
2014	25	8,260	0.90647	7,487	45,480
2015	26	8,355	0.89176	7,451	52,931
2016	27	8,451	0.87729	7,414	60,345
2017	28	8,548	0.86305	7,377	67,722
2018	29	8,646	0.84904	7,341	75,063
2019	30	8,745	0.83525	7,304	82,367
2020	31	8,846	0.82170	7,269	89,636
2021	32	8,948	0.80836	7,233	96,869
2022	33	9,051	0.79524	7,198	104,067
2023	34	9,155	0.78233	7,162	111,229
2024	35	9,260	0.76963	7,127	118,356
2025	36	9,366	0.75714	7,091	125,447
2026	37	9,474	0.74485	7,057	132,504
2027	38	9,583	0.73276	7,022	139,526
2028	39	9,693	0.72086	6,987	146,513
2029	40	9,804	0.70916	6,953	153,466
2030	41	9,917	0.69765	6,919	160,385
2031	42	10,031	0.68633	6,885	167,270
2032	43	10,146	0.67519	6,850	174,120
2033	44	10,263	0.66423	6,817	180,937
2034	45	10,381	0.65344	6,783	187,720
2035	46	10,500	0.64284	6,750	194,470
2036	47	10,621	0.63240	6,717	201,187
2037	48	10,743	0.62214	6,684	207,871
2038	49	10,867	0.61204	6,651	214,522
2039	50	10,992	0.60210	6,618	221,140
2040	51	11,118	0.59233	6,586	227,726
2041	52	11,246	0.58272	6,553	234,279
2042	53	11,375	0.57326	6,521	240,800
2043	54	11,506	0.56395	6,489	247,289
2044	55	11,638	0.55480	6,457	253,746
2045	56	11,772	0.54579	6,425	260,171
2046	57	11,907	0.53693	6,393	266,564
2047	58	12,044	0.52822	6,362	272,926
2048	59	12,183	0.51964	6,331	279,257
2049	60	12,323	0.51121	6,300	285,557
2050	61	12,465	0.50291	6,269	291,826
2051	62	12,608	0.49475	6,238	298,064
2052	63	12,753	0.48672	6,207	304,271
2053	64	12,900	0.47882	6,177	310,448
2054	65	13,048	0.47104	6,146	316,594
2055	66	13,198	0.46340	6,116	322,710
2056	67	13,350	0.45587	6,086	328,796
2057	68	13,504	0.44847	6,056	334,852
2058	69	13,659	0.44120	6,026	340,878

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# PRESENT VALUE OF FUTURE OFFSET WAGES 2009 - 2070

			DISCOUNT	PRESENT	
YEAR	AGE	WAGES	FACTOR	VALUE	CUMULATE
****	***	*****	*****	*****	*****
2059	70	13,816	0.43403	5,997	346,875
2060	71	13,975	0.42699	5,967	352,842
2061	72	14,136	0.42006	5,938	358,780
2062	73	14,299	0.41324	5,909	364,689
2063	74	14,463	0.40653	5,880	370,569
2064	75	14,629	0.39993	5,851	376,420
2065	76	14,797	0.39344	5,822	382,242
2066	. 77	14,967	0.38705	5,793	388,035
2067	78	15,139	0.38077	5,764	393,799
2068	79	15,313	0.37459	5,736	399,535
2069	80	15,489	0.36851	5,708	405,243
2070	81	14,852	0.36284	5,389	\$410,632

\$410,632

PRESENT VALUE OF FUTURE OFFSET EMPLOYEE BENEFITS 2009 - 2070

		EMPLOYEE	DISCOUNT	PRESENT	
YEAR	AGE	BENEFITS	FACTOR	VALUE	CUMULATE
***	***	*****	*****	*****	******
2009	20	\$484	0.98377	\$476	\$476
2010	21	489	0.96780	473	949
2011	22`	495	0.95209	471	1,420
2012	23	501	0.93664	469	1,889
2013	24	506	0.92143	466	2,355
2014	25	512	0.90647	464	2,819
2015	26	518	0.89176	462	3,281
2016	27	524	0.87729	460	3,741
2017	28	530	0.86305	457	4,198
2018	29	536	0.84904	455	4,653
2019	30	542	0.83525	453	5,106
2020	31	548	0.82170	450	5,556
2021	32	555	0.80836	449	6,005
2022	33	561	0.79524	446	6,451
2023	34	568	0.78233	444	6,895
2024	35	574	0.76963	442	7,337
2025	36	581	0.75714	440	7,777
2026	37	587	0.74485	437	8,214
2027	38	594	0.73276	435	8,649
2028	39	601	0.72086	433	9,082
2029	40	608	0.70916	431	9,513
2030	41	615	0.69765	429	9,942
2031	42	622	0.68633	427	10,369
2032	43	629	0.67519	425	10,794
2033	44	636	0.66423	422	11,216
2034	45	644	0.65344	421	11,637
2035	46	651	0.64284	418	12,055
2036	47	659	0.63240	417	12,472
2037	48	666	0.62214	414	12,886
2038	49	674	0.61204	413	13,299
2039	50	682	0.60210	411	13,710
2040	51	689	0.59233	408	14,118
2041	52	697	0.58272	406	14,524
2042	53	705	0.57326	404	14,928
2043	54	713	0.56395	402	15,330°
2044	55	722	0.55480	401	15,731
2045	56	730	0.54579	. 398	16,129
2046	57	738	0.53693	396	16,525
2047	58	747	0.52822	395	16,920
2048	59	755	0.51964	392	17,312
2049	60	764	0.51121	391	17,703
2050	61.	773	0.50291	389	18,092
2051	62	782	0.49475	387	18,479
2052	63	791	0.48672	385	18,864
2053	64	800	0.47882	383	19,247
2054	65	809	0.47104	381	19,628
2055	66	818	0.46340	379	20,007
2056	67	828	0.45587	377	20,384
2057	68	837	0.44847	375	20,759
2058	69	847	0.44120	374	21,133

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PRESENT VALUE OF FUTURE OFFSET EMPLOYEE BENEFITS 2009 - 2070

		EMPLOYEE	DISCOUNT	PRESENT	
YEAR	AGE	BENEFITS	FACTOR	VALUE	CUMULATE
***	***	*****	*****	*****	*****
2059	70	857	0.43403	372	21,505
2060	71	866	0.42699	370	21,875
2061	72	876	0.42006	368	22,243
2062	73	887	0.41324	367	22,610
2063	74	897	0.40653	365	22,975
2064	75	907	0.39993	363	23,338
2065	76	917	0.39344	361	23,699
2066	77	928	0.38705	359	24,058
2067	78	939	0.38077	358	24,416
2068	79	949	0.37459	355	24,771
2069	. 80	960	0.36851	354	25,125
2070	81	921	0.36284	334	\$25,459

PRESENT VALUE OF NET OFFSET WAGES AND BENEFITS 2009 - 2070

				EMPLOYEE		
	YEAR	AGE	WAGES	BENEFITS	TOTAL	CUMULATE
	****	***	*****	*****	******	******
	2009	20	\$7,673	\$476	\$8,149	\$8,149
	2010	21	7,636	473	8,109	16,258
	2011	22	7,599	471	8,070	24,328
	2012	23	7,561	469	8,030	32,358
	2013	24	7,524	466	7,990	40,348
	2014	25	7,487	464	7,951	48,299
	2015	26	7,451	. 462	7,913	56,212
	2016	27	7,414	460	7,874	64,086
	2017	28	7,377	457	7,834	71,920
	2018	29	7,341	455	7,796	79,716
	2019	30	7,304	453	7,757	87,473
	2020	31	7,269	450	7,719	95,192
	2021	32	7,233	449	7,682	102,874
	2022	33	7,198	446	7,644	110,518
	2023	34	7,162	444	7,606	118,124
	2023	35	•		7,569	125,693
	2024		7,127	442	-	
		36	7,091	440	7,531	133,224
	2026	37	7,057	437	7,494	140,718
	2027	38	7,022	435	7,457	148,175
	2028	39	6,987	433	7,420	155,595
	2029	40	6,953	431	7,384	162,979
	2030	41	6,919	429	7,348	170,327
	2031	42	6,885	427	7,312	177,639
	2032	43	6,850	425	7,275	184,914
	2033	44	6,817	422	7,239	192,153
	2034	45	6,783	421	7,204	199,357
	2035	46	6,750	418	7,168	206,525
	2036	47	6,717	417	7,134	213,659
	2037	48	6,684	414	7,098	220,757
	2038	49	. 6,651	413	7,064	227,821
	2039	50	6,618	411	7,029	234,850
,	2040	51	6,586	408	6,994	241,844
	2041	52	6,553	406	6,959	248,803
	2042	53	6,521	404	6,925	255,728
	2043	54	6,489	402	6,891	262,619
	2044	55	6,457	401	6,858	269,477
	2045	56	6,425	398	6,823	276,300
	2046	57	6,393	396	6,789	283,089
	2047	58	6,362	395	6,757	289,846
	2048	59	6,331	392	6,723	296,569
	2049	60	6,300	391	6,691	303,260
	2050	61	6,269	389	6,658	309,918
	2051	62	6,238	387	6,625	316,543
	2052	63	6,207	385	6,592	323,135
	2053	64	6,177	383	6,560	329,695
	2054	65	6,146	381	6,527	336,222
	2055	66	6,116	379	6,495	342,717
	2056	67	6,086	377	6,463	349,180
	2057	68	6,056	375	6,431	355,611
	2058	69	6,026	374	6,400	362,011

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## PRESENT VALUE OF NET OFFSET WAGES AND BENEFITS 2009 - 2070

			EMPLOYEE		
YEAR	AGE	WAGES	BENEFITS	TOTAL	CUMULATE
****	***	*****	*****	*****	*****
2059	70	5,997	372	6,369	368,380
2060	71	5,967	370	6,337	374,717
2061	72	5,938	368	6,306	381,023
2062	73	5,909	367	6,276	387,299
2063	74	5,880	365	6,245	393,544
2064	75	5,851	363	6,214	399,758
2065	76	5,822	361	6,183	405,941
2066	77	5,793	359	6,152	412,093
2067	78	5,764	358	6,122	418,215
2068	79	5,736	355	6,091	424,306
2069	80	5,708	354	6,062	430,368
2070	81	5,389	334	5,723	\$436,091
		\$410.632	\$25.459	\$436.091	

PRESENT VALUE OF FUTURE TREATMENT AND COUNSELING COSTS 2009 - 2070

		LIFE	DISCOUNT	PRESENT	
YEAR	AGE	CARE	FACTOR	VALUE	CUMULATE
***	***	****	*****	*****	******
2009	20	\$9,739	0.98377	\$9,581	\$9,581
2010	21	9,851	0.96780	9,534	19,115
2011	22	9,964	0.95209	9,487	28,602
2012	23	10,079	0.93664	9,440	38,042
2013	24	10,195	0.92143	9,394	47,436
2014	25	10,312	0.90647	9,348	56,784
2015	26	10,431	0.89176	9,302	66,086
2016	27	10,551	0.87729	9,256	75,342
2017	28	10,672	0.86305	9,210	84,552
2018	29	10,795	0.84904	9,165	93,717
2019	30	10,919	0.83525	9,120	102,837
2020	31	11,045	0.82170	9,076	111,913
2021	32	11,172	0.80836	9,031	120,944
2022	33	11,300	0.79524	8,986	129,930
2023	34	11,430	0.78233	8,942	138,872
2024	35	11,561	0.76963	8,898	147,770
2025	36	11,694	0.75714	8,854	156,624
2026	37	11,828	0.74485	8,810	165,434
2027	38	11,964	0.73276	8,767	174,201
2028	39	12,102	0.72086	8,724	182,925
2029	40	12,241	0.70916	8,681	191,606
2030	41	12,382	0.69765	8,638	200,244
2031	42	12,524	0.68633	8,596	208,840
2032	43	12,668	0.67519	8,553	217,393
2033	44	12,814	0.66423	8,511	225,904
2034	45	12,961	0.65344	8,469	234,373
2035	46	13,110	0.64284	8,428	242,801
2036	47	13,261	0.63240	8,386	251,187
2037	48	13,414	0.62214	8,345	259,532
2038	49	13,568	0.61204	8,304	267,836
2039	50	13,724	0.60210	8,263	276,099
2040	51	13,882	0.59233	8,223	284,322
2041	52	14,042	0.58272	8,183	292,505
2042	53	14,203	0.57326	8,142	300,647
2043	54	14,366	0.56395	8,102	308,749
2044	55	14,531	0.55480	8,062	316,811
2045	56	14,698	0.54579	8,022	324,833
2046	57	14,867	0.53693	7,983	332,816
2047	58	15,038	0.52822	7,943	340,759
2048	59	15,211	0.51964	7,904	348,663
2049	60	15,386	0.51121	7,865	356,528
2050	61	15,563	0.50291	7,827	364,355
2051	62 63	15,742	0.49475	7,788	372,143
2052	63 64	15,923	0.48672	7,750	379,893
2053	64 65	16,106	0.47882	7,712	387,605
2054 2055	65 66	16,291 16,478	0.47104	7,674	395,279
2056	67	16,478	0.46340 0.45587	7,636 7,598	402,915 410,513
2057	68	16,859	0.44847	7,590	410,513
2058	69	17,053	0.44120	7,501	425,598
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PRESENT VALUE OF FUTURE TREATMENT AND COUNSELING COSTS 2009 - 2070

		LIFE	DISCOUNT	PRESENT	
YEAR	AGE	CARE	FACTOR	VALUE	CUMULATE
****	***	*****	*****	*****	******
2059	70	17,249	0.43403	7,487	433,085
2060	71	17,447	0.42699	7,450	440,535
2061	72	17,648	0.42006	7,413	447,948
2062	73	17,851	0.41324	7,377	455,325
2063	74	18,056	0.40653	7,340	462,665
2064	75	18,264	0.39993	7,304	469,969
2065	76	18,474	0.39344	7,268	477,237
2066	77	18,686	0.38705	7,232	484,469
2067	78	18,901	0.38077	7,197	491,666
2068	79	19,118	0.37459	7,161	498,827
2069	80	19,338	0.36851	7,126	505,953
2070	81	18,542	0.36284	6,728	\$512,681

\$512,681

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LOSS OF PAST RVL OF 1999 - 2008

YEAR ***	AGE ***	RVL *****	CUMULATE *****
1999	10	\$142,362	\$142,362
2000	11	147,189	289,551
2001	12	149,470	439,021
2002	13	153,027	592,048
2003	14	155,904	747,952
2004	15	160,987	908,939
2005	16	166,492	1,075,431
2006	17	170,721	1,246,152
2007	18	177,687	1,423,839
2008	19	183,017	\$1,606,856

\$1,606,856

PRESENT VALUE OF FUTURE RVL OF 2009 - 2070

			DIGGOIDIE	DD 2 2 2 2 2 2 2	
VEN D	A CIE	D177	DISCOUNT	PRESENT	CITATI A DE
YEAR ****	AGE ***	RVL *****	FACTOR	VALUE *****	CUMULATE ******
2009	20	\$188,508	0.98377	\$185,449	\$185,449
2010	21	188,508	0.96780	182,438	367,887
2011	22	188,508	0.95209	179,477	547,364
2012	23	188,508	0.93664	176,564	723,928
2013	24	188,508	0.92143	173,697	897,625
2014	25 26	188,508	0.90647	170,877	1,068,502
2015	26 27	188,508	0.89176	168,104	1,236,606
2016	27	188,508	0.87729	165,376	1,401,982
2017	28	188,508	0.86305	162,692	1,564,674
2018	29	188,508	0.84904	160,051	1,724,725
2019	30	188,508	0.83525	157,451	1,882,176
2020	31	188,508	0.82170	154,897	2,037,073
2021	32	188,508	0.80836	152,382	2,189,455
2022	33	188,508	0.79524	149,909	2,339,364
2023	34	188,508	0.78233	147,475	2,486,839
2024	35 36	188,508	0.76963	145,081	2,631,920
2025	36	188,508	0.75714	142,727	2,774,647
2026	37	188,508	0.74485	140,410	2,915,057
2027	38	188,508	0.73276	138,131	3,053,188
2028	39 40	188,508	0.72086	135,888	3,189,076
2029	40	188,508	0.70916	133,682	3,322,758
2030	41	188,508	0.69765	131,513	3,454,271
2031	42	188,508	0.68633	129,379	3,583,650
2032	43	188,508	0.67519	127,279	3,710,929
2033	44	188,508	0.66423	125,213	3,836,142
2034 2035	45 46	188,508 188,508	0.65344	123,179	3,959,321
2036	47	188,508	0.64284	121,180	4,080,501
2037	48	188,508	0.63240 0.62214	119,212 117,278	4,199,713 4,316,991
2038	49	188,508	0.61204	115,374	4,432,365
2039	50	188,508	0.60210	113,501	4,545,866
2040	51	188,508	0.59233	111,659	4,657,525
2041	52	188,508	0.58272	109,847	4,767,372
2042	53	188,508	0.57326	108,064	4,875,436
2043	54	188,508	0.56395	106,309	4,981,745
2044	55	188,508	0.55480	104,584	5,086,329
2045	56	188,508	0.54579	102,886	5,189,215
2046	57	188,508	0.53693	101,216	5,290,431
2047	58	188,508	0.52822	99,574	5,390,005
2048	59	188,508	0.51964	97,956	5,487,961
2049	60	188,508	0.51121	96,367	5,584,328
2050	61	188,508	0.50291	94,803	5,679,131
2051	62	188,508	0.49475	93,264	5,772,395
2052	63	188,508	0.48672	91,751	5,864,146
2053	64	188,508	0.47882	90,261	5,954,407
2054	65	188,508	0.47104	88,795	6,043,202
2055	66	188,508	0.46340	87,355	6,130,557
2056	67	188,508	0.45587	85,935	6,216,492
2057	68	188,508	0.44847	84,540	6,301,032
2058	69	188,508	0.44120	83,170	6,384,202

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(Cont.)

PRESENT VALUE OF FUTURE RVL OF 2009 - 2070

			DISCOUNT	PRESENT	
YEAR	AGE	RVL	FACTOR	VALUE	CUMULATE
****	***	*****	*****	*****	*****
2059	70	188,508	0.43403	81,818	6,466,020
2060	71	188,508	0.42699	80,491	6,546,511
2061	72	188,508	0.42006	79,185	6,625,696
2062	73	188,508	0.41324	77,899	6,703,595
2063	74	188,508	0.40653	76,634	6,780,229
2064	75	188,508	0.39993	75,390	6,855,619
2065	76	188,508	0.39344	74,167	6,929,786
2066	77	188,508	0.38705	72,962	7,002,748
2067	78	188,508	0.38077	71,778	7,074,526
2068	79	188,508	0.37459	70,613	7,145,139
2069	80	188,508	0.36851	69,467	7,214,606
2070	81	178,695	0.36284	64,838	\$7,279,444

\$7,279,444

PRESENT VALUE OF NET RVL OF 1999 - 2070

YEAR	AGE	RVL	CUMULATE
***	* * *	******	*****
1999	10	\$142,362	\$142,362
2000	11	147,189	. 289,551
2001	12	149,470	439,021
2002	13	153,027	592,048
2003	14	155,904	747,952
2004	15	160,987	908,939
2005	16	166,492	1,075,431
2006	17	170,721	1,246,152
2007	18	177,687	1,423,839
2008	19	183,017	1,606,856
2009	20	185,449	1,792,305
2010	21	182,438	1,974,743
2011	22	179,477	2,154,220
2012	23	176,564	2,330,784
2013	24	173,697	2,504,481
2014	25	170,877	2,675,358
2015	26	168,104	2,843,462
2016	27	165,376	3,008,838
2017	28	162,692	3,171,530
2018	29	160,051	3,331,581
2019	30	157,451	3,489,032
2020	31	154,897	3,643,929
2021	32	152,382	3,796,311
2022	33	149,909	3,946,220
2023	34	147,475	4,093,695
2024	35	145,081	4,238,776
2025	36	142,727	4,381,503
2026	37	140,410	4,521,913
2027	38	138,131	4,660,044
2028	39	135,888	4,795,932
2029	40	133,682	4,929,614
2030	41	131,513	5,061,127
2031	42	129,379	5,190,506
2032	43	127,279	5,317,785
2033	44	125,213	5,442,998
2034	45	123,179	5,566,177
2035	46	121,180	5,687,357
2036	47	119,212	5,806,569
2037	48	117,278	5,923,847
2038	49	115,374	6,039,221
2039	50	113,501	6,152,722
2040	51	111,659	6,264,381
2041	52	109,847	6,374,228
2042	53 54	108,064	6,482,292
2043	54 55	106,309	6,588,601
2044	55 56	104,584	6,693,185
2045	56 57	102,886	6,796,071
2046	57 58	101,216	6,897,287
2047	58 50	99,574	6,996,861
2048	59	97,956	7,094,817

PRESENT VALUE OF NET RVL OF 1999 - 2070

YEAR	AGE	RVL	CUMULATE
***	***	******	******
2049	60	96,367	7,191,184
2050	61	94,803	7,285,987
2051	62	93,264	7,379,251
2052	63	91,751	7,471,002
2053	64	90,261	7,561,263
2054	65	88,795	7,650,058
2055	66	87,355	7,737,413
2056	67	85,935	7,823,348
2057	68	84,540	7,907,888
2058	69	83,170	7,991,058
2059	70	81,818	8,072,876
2060	71	80,491	8,153,367
2061	72	79,185	8,232,552
2062	73	77,899	8,310,451
2063	74	76,634	8,387,085
2064	75	75,390	8,462,475
2065	76	74,167	8,536,642
2066	77	72,962	8,609,604
2067	78	71,778	8,681,382
2068	79	70,613	8,751,995
2069	80	69,467	8,821,462
2070	81	64,838	\$8,886,300

\$8,886,300

#### Smith Economics Group, Ltd.

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#### STAN V. SMITH, PH.D.

Smith Economics Group, Ltd. -- Consultants and Experts in Economics and Finance. President, 11/85 to present. Assisted in the successful resolution of thousands of lawsuits on behalf of clients that include many dozens of the nation's largest law firms, the U.S. Department of Justice, as well as thousands of other prominent plaintiff and defense law firms in almost every state. Firm provides economic and financial consulting and economic legal analysis in federal and state courts on damages of every sort including: Antitrust damages, patent valuation, business losses, lost wages and other injury losses, business valuation, hedonic damages, product liability, pension fund evaluation and withdrawal liability, security losses, commercial damages, employment discrimination, identity theft and FCRA credit damages.

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- <u>DePaul University.</u> -- Adjunct Professor, College of Law, 1990 to 1994. Taught a full three-credit course in Advanced Remedies Analysis of Economic Damages in Litigation, based on my textbook on Forensic Economics; delivered lectures to other courses in subsequent years. This was the first course taught nationwide in the area of Forensic Economics.
- <u>Ibbotson Associates, Inc.</u> -- Economic and Financial Consultants. Principal and Managing Director; Originator of SBBI Subscription Services, 11/81 to 11/85. Firm provides consulting to hundreds of the nation's most prominent money managers, law firms, brokerage firms, and pension funds.
- <u>Seaguest International, Inc.</u> -- Founder and President, 7/77 to 11/81. Developed and financed sophisticated research, search, and recovery technologies for ancient underwater artifacts.
- <u>The December Group, Ltd.</u> -- Investment Banking Consultants. Associate Economic Analyst 12/74 to 7/77. Firm specialized in mergers and acquisitions, leveraged buy-outs, divestitures and financing specialized start-ups with venture capital.
- <u>JPMorgan Chase Bank Chicago.</u> -- Staff Economist, 3/74 to 12/74. Analyzed bank credit and service pricing policies.
- Federal Reserve System. -- Staff Economist at Board of Governors, Washington, D.C. 9/73 to 2/74.
- University of Chicago. -- Lecturer in Public Policy Economics, 3/73 to 6/73.
  Research Assistant in Economics, 3/70 to 6/73.
- <u>Midlothian Manufacturing Co.</u> -- Vice President, 9/68 to 3/73. Responsible for marketing to retail and industrial clients; responsible for production control.

#### EDUCATIONAL BACKGROUND:

University of Chicago, Chicago IL. Ph.D. in Economics, 1997; Support Areas in Finance and Econometrics. Honors: Allied Chemical Scholar and Federal Reserve Internship.

University of Chicago, Chicago, IL. Master's Degree, 1972, Graduate School of Business; Field of Concentration in Economics.

Cornell University, Ithaca, NY. Bachelor of Science, Operations Research, 1968; Field of Concentration in Statistics, Computer Science and Industrial Engineering, Honors: John McMullen Scholar.

#### PROFESSIONAL ACTIVITIES:

American Academy of Economic & Financial Experts, <u>Journal of Legal Economics</u>, Manuscript Referee, 199x-2008.

American Arbitration Association, Arbitrator, 1994 to 1996;

American Board of Disability Analysts, Member & Diplomat, 2001 to present;

American Board of Disability Analysts, Professional Advisory Council, 2002 to present;

American College of Forensic Examiners, Fellow and Board Certified Forensic Examiner, 1996 to 2005;

American Economic Association, Member, 1985 to present;

American Finance Association, Member, 1985 to present;

Collegium of Pecuniary Damages Experts, Charter Member, 2008-present;

<u>Journal of the American Rehabilitation Economics Association: The Earnings Analyst</u>, Manuscript Referee, 1998 to 2002;

Journal of Forensic Economics, Board of Editors, 1990 to 2001;

Journal of Forensic Economics, Manuscript Referee, 1990 to 2003;

National Academy of Economic Arbitrators, Founder and Charter Member, 1989 to 2005;

National Association of Forensic Economics, Vice President, 2000 to 2003;

National Association of Forensic Economics, Member, 1988 to present;

National Futures Association's Panel of Arbitrators, Arbitrator, 1994 to present;

#### **PUBLICATIONS:**

Author, "Historical Returns on Investment Instruments," <u>Handbook of Modern Finance</u> 1985, with Roger Ibbotson and Larry Siegel; Dennis Logue, ed., Warren, Gorham & Lamont, New York.

Author, 1988 Supp. to Vol 13, Am Jur Proof of Facts 2d on Hedonic Damages.

Author, "Economist Proposes Relief From Present Value Ruling," <a href="https://doi.org/10.1016/j.com/Present-Value Ruling">Chicago Daily Law Bulletin</a>, June 8, 1988.

Author, "Hedonic Damages" <u>Illinois Tort Report</u>, June, 1988.

Author, "Hedonic Damages in Wrongful Death Cases," the ABA Journal, Sept, 1988.

Author, "Hedonic Damages," <u>The Audio Lawyer</u>, Vol. 6 No. 8, ALI-ABA, February, 1989.

Author, "The Hedonic Value of Life: Economic Expert Witness Testimony in Injury and Wrongful Death," <a href="Expert Evidence Reporter">Expert Evidence Reporter</a>, Vol. 1, No. 1, September 1989, Shepard's McGraw-Hill. 9122

- Co-author: <u>Economic/Hedonic Damages: A Practice Book for Plaintiff and Defense Attorneys</u>, with M. L. Brookshire, Anderson Publishing Co., Cinn., Ohio, 1990.
- Co-author, "Hedonic Damages and Personal Injury: A Conceptual Approach," <u>Journal of Forensic Economics</u>, 3(1), 1990, pp. 1-8.
- Author, "Hedonic Damages in the Courtroom Setting A Bridge Over Troubled Waters," <u>Journal of Forensic Economics</u>, 3(3), 1990, pp. 41-49.
- Author, "Admissibility of Hedonic Damages Testimony," <u>The Audio Litigator</u>, Vol. 1, No. 1, April, 1990, ALI-ABA.
- Author, "Hedonic Damages," with G. Magnarini, <u>Wisconsin Lawyer</u>, Vol. 64, No. 2, February 1991.
- Author, "Hedonic Damages: Assessing the Loss of Enjoyment of Life," <u>California State Bar Bulletin</u>, Vol. 1, No. 8, June 1991.
- Co-author, "Hedonic Damages and Personal Injury: A Conceptual Approach," <u>Journal of Forensic Economics</u>, 3(1), 1990, pp. 1-8; Reprinted in <u>A Hedonics Primer for Economists and Attorneys</u>, Compiled and Edited by John O. Ward, Lawyers & Judges Publishing Co., Chapter 7, pp. 121-129, 1992.
- Co-author: 1991/1992 Cumulative Supplement to Economic/Hedonic Damages: A Practice Book for Plaintiff and Defense Attorneys, with M. L. Brookshire, Anderson Publishing Co., Cinn., Ohio, 1992.
- Author, "Hedonic Damages in the Courtroom Setting A Bridge Over Troubled Waters,," <u>Journal of Forensic Economics</u>, 3(3), 1990, pp. 41-49; Reprinted in <u>A Hedonics Primer for Economists and Attorneys</u>, Compiled and Edited by John O. Ward, Lawyers & Judges Publishing Co., Chapter 6, pp. 111-120, 1992.
- Author, "Spotting Bias in Plaintiffs' Economic Loss Reports: A Primer for both Sides," <u>Illinois Bar Journal</u>, Vol 80, No. 12, December, 1992, pp. 635-638.
- Author, "Life Values: Measuring the Loss of Enjoyment of Life Economic Analysis whose time has come," <u>The Brief</u>, Summer 1993, Vol. 22, No. 4 pp. 24-27, 62-63, The American Bar Association.
- Co-author: 1992/1993 Cumulative Supplement to Economic/Hedonic Damages: A Practice Book for Plaintiff and Defense Attorneys, with M. L. Brookshire and Charles W. de Seve, Anderson Publishing Co., Cinn., Ohio, 1993.
- Author, "Evaluating the Loss of Enjoyment of Life Hedonic Damages," in Charles N. Simkins, ed., <u>Analysis, Understanding and Presentation of Cases Involving Traumatic Brain Injury</u>, National Head Injury Foundation, Wash., DC, 1993.
- Author, "Hedonic Damages in Personal Injury and Wrongful Death Litigation," in Gaughan and Thornton, eds. <u>Litigation Economics</u>, Contemporary Studies in Economic and Financial Analysis, Vol 74, JAI Press, Greenwich, CT, 1993.
- Author, "Economic Evaluation of the Loss of Enjoyment of Life HedonicDamages," in <u>Damages in Tort Actions</u>, Ch. 124, Release 29 February 1994, Pub. 309, Mathew Bender & Co., New York.
- Author, "Measuring the Loss of Enjoyment of Life in Personal Injury Cases Hedonic Damages," <u>Journal of the Massachusetts Academy of Trial Attorneys</u>, Vol 2, No. 1, July, 1994, pp. 65-67.
- Author, 3-Part Series, "Two Plus Two Equals -- What?" October, 1994, p. 21; "Detecting Bias in Economics," November, 1994, pp. 14 & 21; "Striving for Economic Fairness," December, 1994, pp. 24-25, California Bar Journal, The Experts.
- Author, "Measuring the Loss of Enjoyment of Life in Personal Injury Cases Hedonic Damages," MTLA News, Vol. 6, No. 4, December, 1994, pp. 3-5, Maine Trial Lawyers Association.

- Author, "Hedonic Damages: Measuring The Loss of Enjoyment of Life in Personal Injury Cases," <u>The Prairie Barrister</u>, Vol. 1, No. 1, Winter, 1995, pp. 3, 4, & 12, Nebraska Association of Trial Attorneys.
- Author, "Measuring The Loss of Enjoyment of life in Personal Injury Cases in Ohio Hedonic Damages," <u>Ohio Trial</u>, Vol. 6, Issue 3, Summer 1995, pp. 13-16, Ohio Academy of Trial Lawyers Education Foundation.
- Author, "Measuring The Loss of Enjoyment of Life in Personal Injury Cases Hedonic Damages," <u>The Advocate</u>, Vol. 22, No. 5, September/October, 1995, pp. 14-16, 22, The Kentucky Academy of Trial Attorneys.
- Author, "Damages for the Value of Life," North Dakota Trial Lawyers <u>The Pleader</u>, Vol. 18, No. 4, September 1995, pp. 9-11, 24.
- Author, "Hedonic Damages Measuring The Loss of Enjoyment of Life in Personal Injury Cases," <u>Law Reporter</u>, The Journal of the Hawaii Trial lawyers Association, Vol. 7, No. 9, September 1995, pp. 8-10.
- Author, "Measuring The Loss of Enjoyment of Life in Personal Injury Cases in Arizona Hedonic Damages," <u>Advocate</u>, Arizona Trial Lawyers Association, November 1995, pp. 5, 7, 15.
- Co-author, "Hedonic Damages and Personal Injury: A Conceptual Approach," <u>Journal of Forensic Economics</u>, 3(1), 1990, pp. 1-8; Reprinted in <u>A New Hedonics Primer for Economists and Attorneys</u>, Compiled and Edited by Thomas R. Ireland and John O. Ward, Lawyers & Judges Publishing Co., Reading 25, 1996, pp. 325-334.
- Author, "Hedonic Damages Measuring the Loss of Enjoyment of Life in P.I. Cases," <u>In Brief</u>, Iowa Trial Lawyers Association, Vol. 7/Issue 1, January-February 1996, pp. 13-15.
- Author, "Hedonic Damages in Personal Injury and Wrongful Death Litigation," in Gaughan and Thornton, eds. <u>Litigation Economics</u>, Contemporary Studies in Economic and Financial Analysis, Vol 74, JAI Press, Greenwich, CT, 1993; Reprinted in <u>A New Hedonics Primer for Economists and Attorneys</u>, Compiled and Edited by Thomas R. Ireland and John O. Ward, Lawyers & Judges Publishing Co., Reading 3, 1996, pp. 15-36.
- Author, "Measuring the Loss of Enjoyment of Life in Personal Injury Cases and Wrongful Death Cases in New Mexico Hedonic Damages," <u>The New Mexico Trial Lawyer</u>, New Mexico Trial Lawyers' Foundation, Vol. XXIV, No. 3, March, 1996, pp. 1, 60-63.
- Author with Introduction by Darrel W. Aherin, "Measuring The Loss of Enjoyment of Life in Personal Injury Cases Hedonic Damages," <u>Idaho Trial Lawyers</u>
  <u>Association Journal</u>, Volume 25, Number 2, Summer 1996, pp. 32-36.
- Author, "The Value of Life to Close Family Members: Calculating the Loss of Society and Companionship," <u>The New Hedonics Primer for Economists and Attorneys</u>, Second Edition, Edited by Thomas R. Ireland and John O. Ward, Lawyers & Judges Publishing Co., 1996, pp. 377-384.
- Author, "Pseudo-Economists The New Junk Scientists," <u>Federation of Insurance & Corporate Counsel Quarterly</u>, Vol. 47, No. 1, Fall 1996, pp. 95-105.
- Author with Introduction by Darrel W. Aherin, "Measuring The Loss of Enjoyment of Life in Personal Injury Cases in Idaho Hedonic Damages," <u>Western Chronicle</u>, N/D 1996, Western Trial Lawyers Association, pp. 32, 35-36.
- Author, "Measuring The Loss of Enjoyment of Life in Personal Injury Cases in Washington Hedonic Damages," <u>Trial News</u>, Vol. 32, Number 5, January 1997, Washington State Trial Lawyers Association, pp. 29-30.
- Author, "Jury Verdicts in Drunken Driving Cases," University of Chicago Ph.D. Thesis, UMI Dissertation Services, Ann Arbor, MI, 1997.
- Author, "The Value of Life to Close Family Members: Calculating the Loss of

- Society and Companionship," <u>American Rehabilitation Economics Association 1997</u>
  <u>Monograph</u>, pp. 10-16.
- Author, Abstract: "Jury Verdicts in Drunken Driving Cases," <u>Journal of Forensic</u> Economics, 11(1), 1998, p. 67-68.
- Author, "Why Juries Can Be Trusted," <u>Voir Dire</u>, Vol. 5, Issue 3, Summer 1998, American Board of Trial Advocates, pp. 19-21 & 25.
- Author, "Measuring The Loss of Enjoyment of Life in Personal Injury Cases Hedonic Damages," <u>The Neurolaw Letter</u>, Vol. 9, No. 8, April 2000, pp. 45, 48-49.
- Author, "Jury Verdicts and the Dollar Value of Human Life," <u>Journal of Forensic</u> <u>Economics</u>, 13(2), 2000, pp. 169-188.
  - Author, "Hedonic Damages," Izabela Z. Schultz, Douglas O. Brady, Steven Carella, Eds., <u>Psychological Injuries at Trial</u>, Torts Section, American Bar Association, 2003.
- Contributor, "Economic Foundations of Injury and Death Damages," Roger T. Kaufman, James D. Rodgers, Gerald D. Martin, Edward Elgar Publishing, Inc., 2005.
- Author, "Don't Overlook the Loss of Expanded Family Services," <u>Trial</u>, Vol. 42, No. 3, "Good Counsel" Column, March 2006, pg. 73.
- Co-author, "What is Your Value?" Chapter 2 in <u>Six-Figure Salary Negotiation</u>, Michael Zwell, Platinum Press, 2008.
- Co-Author, "Jury Verdicts in Drunken Driving Cases," Review of Law & Economics, Berkeley Press, 2008.
- Contributor, "Determining Economic Damages," Gerald D. Martin, James Publishing Inc., 2008 & previous years' editions.

Originator of Ibbotson Associates' <u>Stocks, Bonds, Bills, and Inflation</u> (SBBI) Yearbook and Companion Services published by Morningstar, Inc. SBBI is the authoritative compendium of U. S. financial and investment performance data from 1926 to the present. SBBI is widely relied upon and regarded as the standard reference in courts of law and by the academic, actuarial and investment community. 2008 and all editions since 1993.

#### PROFILES:

The Wall Street Journal, page 1 feature article with photo;

The Best Lawyer's in America: Directory of Expert Witnesses;

National Law Journal, page 1 feature article with photo;

Who's Who in the World;

Who's Who in America;

Who's Who in Finance and Industry;

Who's Who in Science and Engineering;

Who's Who in the Midwest;

Who's Who of Emerging Leaders of America;

Chicago Daily Law Bulletin, page 1 feature article;

Chicago Reader, Section 1 feature article with photo;

<u>Like Judgment Day: The Ruin and Redemption of A Town Called Rosewood</u>, D'Orso, Michael, 1996, Pg. 237.

#### NATIONAL PRESENTATIONS:

- Arizona: Brain Injury Association 13th Annual Conference for Attorneys, Phoenix, September 16, 1999;
- California: American Bar Assn. Annual Meeting, San Francisco, August 10, 1992;
- California: American Trial Lawyers Association 2005 Winter Convention, "Making Tangible the Intangible: Replacement Household/Family Services", Palm Springs, January 29, 2005;
- Canada: Association of Trial Lawyers of America Annual Meeting, Economic Damages, Toronto, 1991;
- District of Columbia: Larry King Live, Washington, May 22, 1989;
- District of Columbia: National Institute for Trial Advocacy (NITA), Seventh Annual Washington DC Masters Advocacy Program, "Direct and Cross Examination of an Economic Witness," Washington, October 15, 1991;
- District of Columbia: National Assn. of Protection & Advocacy Systems, Inc., 19th Annual Conference, "Assessment and Proof of Damages," Washington, May 30, 1996;
- Florida: Association of Trial Lawyers of America 1992 Winter Convention, Boca Raton, "Cutting Edge Developments in Economic Testimony," January 15, 1992;
- Florida: Brain Injury Association 10th Anniversary Trial Lawyers Conference, Palm Beach, September 19, 1996;
- Florida: National Assn. of Consumer Advocates, 2003 NACA-FCRA Conference, Building on Our Success, Panel of Experts, "What the Experts Have Learned, A View From the Witness Box, " Orlando, March 9, 2003;
- Georgia: National Academy of Economic Arbitrators Annual Meeting, Differences in Economic Assumptions in Personal Injury Wage Calculations, Atlanta, December, 1989;
- Georgia: National Assn. of Forensic Economics Annual Meeting, Value of Life, Atlanta, December, 1989;
- Hawaii: American Bar Assn. Annual Meeting in Honolulu, HI, Speaker and Expert Witness at Mock Trial, Honolulu, August, 1989;
- Idaho: Inner Circle of Advocates Annual Meeting, Sun Valley, August, 1989;
- Illinois: University of Chicago 1982 Annual Management Conference on Venture Capital;
- Louisiana: American Bar Assn., National Institute Transportation Megaconference, New Orleans, March 5, 1993;
- Louisiana: Defense Research Institute, Medical Malpractice Seminar, New Orleans, May 6, 1994;
- Louisiana: Association of Trial Lawyers of America 2001 Winter Convention, Litigation at Sunrise, "Measuring the Loss of Enjoyment of Life in Personal Injury Cases -- Hedonic Damages Over the Last Ten Years," New Orleans, February 12, 2001;
- Louisiana: National Assn. of Consumer Advocates, 2005 NACA-FCRA Conference, "Litigating Accuracy Issues with Furnishers of Credit Data," Speaker on Economic Damages, New Orleans, June 5, 2005;
- Michigan: Northwest #255 Air Disaster Steering Committee Mtg, Detroit, June, 1989;
- Nevada: American Rehabilitation Economics Association Conference, Mock Trial Presided by Nevada Supreme Court Justice William Maupin, Reno, May 15, 1999;
- Nevada: National Assn. of Consumer Advocates, 2006 NACA-FCRA Conference, "Experts on Damages," Washington, May 6, 2006;

- Nevada: National Assn. of Consumer Advocates, 2006 NACA-FCRA Conference, "Breakfast with the Stars," Washington, May 7, 2006;
- Nevada: Brain Injury Association of America; Mastering the Science and Trial Strategies, "Making Tangible the Intangible: Expanding the Traditional Measures," Las Vegas, April 4, 2008;
- Pennsylvania: Swiss Re American Annual Claims Conference, "Looking to the Third Millenium," Hershey, June 3, 1996;
- Texas: MADD Advanced Victim Assistance Institute Seminar, Dallas, November 12, 1994;
- Texas: National Norplant Litigation Conference 1995, Houston, June 22, 1995.

#### **REGIONAL PRESENTATIONS:**

- Hawaii: Western Trial Lawyers Assn. 1994 Annual Convention, "Making it Work-Trial Practice in the 90's," Maui, June 16, 1994;
- Illinois: GSA Seminar "Selling your Business", Chicago, October, 1987;
- Louisiana: Southern Trial Lawyers Assn. Annual Meeting, New Orleans, 1988;
- Louisiana: Southern Trial Lawyers Assn. 1996 Mardi Gras Conference, ATLA
- Traumatic Brain Injury Litigation Group, "Economic Implication of a Closed Head Injury," New Orleans, February 18, 1996;
- Michigan: Advocacy Institute, Continuing Legal Education, 46th Annual
  - Seminar, "Wrongful Death of an Older Person," Ann Arbor, May 12, 1995;
- Michigan: Lorman Education Services, "Direct Examination of Experts in a Traumatic Brain Injury Case," Novi, August 21, 1997;
- Michigan: Lorman Education Services, "Direct Examination of Experts in a Traumatic Brain Injury Case," Livonia, August 26, 1998;
- New York: Eastern Finance Assn. Special Session on Pension Fund Asset Reversions, 1985;
- New York: American Reinsurance Company for Senior Claims Executives Annual Meeting, August, 1989;
- Ohio: Anderson Publishing Co., Proof of Economic Damages Seminar, Cincinnati, November 2, 1990.

#### **STATEWIDE PRESENTATIONS:**

- California: Arizona State Bar Fourth Annual "CLE By The Sea," San Diego, July 22-23, 1994;
- Connecticut Trial Lawyer Assn., "All About Experts," Hartford, November 21, 1992;
- Florida State Bar Assn., National Institute of Trial Advocacy (NITA), Advanced Trial Advocacy Seminar, Speaker and Expert Witness at Mock trial on Economic Damages, Gainesville, May 14, 1991;
- Georgia Brain Injury Association & Institute of Continuing Legal Education in Georgia, "Hedonic Damages: Proving Loss of Enjoyment of Life in Non-Fatal Injury Cases," Atlanta, March 29, 2002;
- Idaho Trial Lawyers Assn. Annual Meeting, Twin Falls, February 23, 1996;
- Illinois State Bar Assn. CLE Series, April, 1989;
- Illinois: Insurance Group of the Union League Club of Chicago, "Toward A More Rational Approach to Liability Judgments," Chicago, March 19, 1991;
- Indiana State Bar Assn. Annual Meeting, October, 1989;
- Indiana Trial Lawyers Assn. Annual Meeting, November 30, 1990;

- Indiana State Bar Assn. "Masters in Trial" Spring Meeting, South Bend, April 18,
   1997;
- Iowa Trial Lawyers Assn. Annual Meeting, Des Moines, November 5, 1993;
- Kentucky Academy of Trial Attorneys Damages Seminar, Louisville, August 18,1995;
- Louisiana Trial Lawyer Assn., Baton Rouge, "Winning with Experts" Seminar, November 10, 1989;
- Louisiana Trial Lawyer Assn., "Winning With the Masters" Seminar, New Orleans, November 21, 1995;
- Louisiana Trial Lawyer Assn., "Winning With the Masters" Seminar, New Orleans, December 10, 1997;
- Massachusetts Trial Lawyers Assn., "Learn From the Experts," Boston, October 9, 1992;
- Massachusetts Trial Lawyers Assn. Annual Mtg, Boston, October 29, 1993;
- Michigan Trial Lawyers Assn. Annual Mtg, Wrongful Death Damages, May, 1990;
- Michigan Head Injury Alliance Fifth Annual Seminar on Closed Head Injury, Detroit, March 24, 1994;
- Michigan Head Injury Alliance Sixth Annual Seminar on Closed Head Injury, Detroit, March 23, 1995;
- Michigan Head Injury Alliance Seventh Annual Seminar on Closed Head Injury, Detroit, March 28, 1996;
- Michigan Head Injury Alliance Eighth Annual Seminar on Closed Head Injury, Detroit, March 27, 1997;
- Michigan, Institute of Continuing Legal Education, "The Name of the Game is Damages--Plaintiff and Defense Strategies in Negligence and Employment Cases," Troy, July 20, 2000;
- Michigan Trial Lawyers Assn. Winter Seminar, "Hedonic Damages and Other Special Economic Issues," Gaylord, February 24, 2001;
- Michigan Trial Lawyers Assn. 13th Annual Seminar in the Snow, Litigation Strategies and Techniques, "Loss of Society and Household Companionship and Advisory Services," Bellaire, February 22, 2003;
- Mississippi Trial Lawyers Assn. Annual Convention, "Shooting Stars Seminar," Biloxi, May 19, 1995;
- Mississippi Trial Lawyers Assn. Annual Convention, "Taking Your Recovery to the Next Level: Hedonic Damages," Biloxi, May 10, 2001;
- Mississippi: Arkansas Trial Lawyer Assn. "Maximizing Damages in the Personal Injury Case," Tunica, MS, October 24, 2003;
- Missouri: Kansas Trial Lawyers Assn. Annual Meeting, Kansas City, December 8, 1990;
- Missouri State Bar Annual Meeting, Kansas City, September 19, 1996;
- Missouri State Bar CLE Seminar, Proving Damages in Catastrophic Injury Cases, "Hedonic Damages after September 11th and An Economist's View on Proving Economic Damages," Kansas City, April 19, 2002;
- Missouri State Bar CLE Seminar, Proving Damages in Catastrophic Injury Cases, "Hedonic Damages after September 11th and An Economist's View on Proving Economic Damages," St. Louis, May 9, 2002;
- Montana Trial Lawyer Association Fourth Annual Convention, "Proving The Intangible (Hedonic) Value of Human Life," Whitefish, July 23, 1993;
- Montana Trial Lawyer Association Seventh Annual Convention, Seminar of the Masters, Polson, August 1, 1996;
- Montana Trial Lawyer Association Spring Seminar, Scientific Evidence, "Making Tangible the Intangible: Loss of Enjoyment of Life, and Society & Companionship Damages," Billings, April 25, 2003;

- Nevada: Required Medical and Legal Education for the Traumatic Brain Injury Case, "9/11 Victim Compensation Fund Hedonic Damages: Implications for the State of Nevada," Las Vegas, October 25, 2002;
- New Hampshire Trial Lawyer Association, "Secrets & Strategies of Trial Law," Concord, October 8, 1993;
- New Mexico Trial Lawyers Association Annual Meeting, Economic Damages, Santa Fe, June 22, 1991;
- New Mexico Trial Lawyers Foundation Damages Seminar, Albuquerque, October 11, 1996;
- North Carolina, Brain Injury Assn. of NC, First Annual Trial Lawyers Conference, "The Use of Expert Testimony in Brain Injury Litigation," Charlotte, January 26, 1996;
- North Carolina, Brain Injury Assn. of NC, Second Annual Trial Lawyers Conference, "The Loss of Enjoyment of Life in Personal Injury - Hedonic Damages," Charlotte, January 24, 1997;
- North Dakota Trial Lawyers Assn, Annual Meeting Trial Practice Seminar, Fargo, May 4, 1995;
- Ohio Assn. of Trial Lawyers Annual Meeting, Speaker and Expert Witness at Mock Trial on Wrongful Death Damages, Toledo, April, 1990;
- Ohio Head Injury Association, "Representing the Survivor of Mild Head Injury," Annual Seminar, Columbus, June 3, 1994;
- Pennsylvania: Philadelphia Trial Lawyers Association CLE Lecture Series, March 17, 1993;
- South Dakota Trial Lawyers Assn. Spring Seminar, April, 1989;
- Texas Trial Lawyers Assn., Medical Malpractice Seminar, Wrongful Death Damages, Houston, May, 1990;
- Washington State Trial Lawyers Annual Meeting & Convention, Stevenson, July 11, 1998;
- Wisconsin Assn. of Trial Lawyers Annual Mtg, Wrongful Death Damages, Door County, July, 1990;
- Wisconsin Brain Injury 2nd Annual Seminar, "Identifying and Understanding Traumatic Brain Injury," Green Lake, May 31, 1997.

#### LOCAL PRESENTATIONS:

- Alaska: Alaska Trial Lawyers Assn., Anchorage, August, 1989;
- California: "Value of Life: Dismal Science From the Courtroom, "Economics Department Workshop Colloquium, Pomona College, Claremont, April 17, 2006;
- Illinois: Chicago North Suburban Bar Assn. May, 1988;
- Illinois: Chicago Advocates Society, June, 1988;
- Illinois: Northwest Chicago Suburban Bar Assn., January, 1989;
- Illinois: Chicago Public Radio, WBEZ, February, 1989;
- Illinois: DuPage County, Bar Assn., Chicago, May, 1989;
- Illinois: Sangamon County Trial Lawyers Assn., Springfield, May, 1989;
- Illinois: McHenry County Bar Assn., Chicago, May, 1989;
- Illinois: Chicago Bar Assn. Wrongful Death Seminar, Wrongful Death Damages, February, 1990;
- Illinois: Chicago Bar Assn. Torts Seminar, Defense Perspectives on Economic Damages, January 21, 1991;
- Illinois: Chicago Bar Assn., Wrongful Death Seminar, February 11, 1993;
- Illinois: Chicago Bar Assn. Effective Direct and Cross-Examination of Expert Witnesses A Demonstration, January 9, 1995;

Illinois: Interstate National Corporation, "Cutting Edge Developments on
 Economic Damages - Defense Perspectives", Chicago, August 2, 1995;
Illinois: Interstate National Corporation, "Cutting Edge Developments on
 Economic Damages - Defense Perspectives", Chicago, September 2, 1997;
Illinois: Cassiday Schade & Gloor, "Catastrophic Damages...They're Back! Limiting Damages After the Invalidation of Tort Reform," Chicago, November 18,
 1998;
Illinois: Law Bulletin Publishing Company, Legal Career Day, Economic Outlook
 for Lawyer Employment, Chicago, April 13, 2004;
Michigan: American Radio Network, WFOX, Detroit, January, 1989;
Michigan: Oakland County Bar Association Negligence Committee, Bloomfield Hills,
 November 5, 1996;
Ohio: Hamilton County, Bar Assn. Seminar on Economic Damages, Cincinnati,

#### TELEVISION/VIDEO PRESENTATIONS

January 31, 1991.

American Bar Association Tort and Insurance Practice Section Annual Meeting, "Hedonic Damages," San Francisco, CA, August 10, 1992;
American Law Institute-American Bar Association, ALI-ABA Tape,
 "Hedonic Damages: Litigating the Loss of Enjoyment of Life," The Lawyers'
 Video Magazine, Vol. III Issue 20, Philadelphia, PA, December, 1991;
CNN: Larry King Live, May 22, 1989.

#### PERSONAL BACKGROUND:

Born November 16, 1946, Rhinelander, Wisconsin; Graduated Nicolet High School 1964, Milwaukee, Wisconsin; Honorable Discharge U.S. Army, 1975; Member of Chicago Board Options Exchange, 1975-1978.